

## **Consumer Perceptions of Trade Show Effectiveness: Scale Development and Validation within a B2C Context.**

### **Introduction**

Trade shows (TSs) are defined as events which bring together in a single location a group of suppliers, distributors, and related services that set up physical exhibits of their products from a given industry or discipline (Herbig, O'Hara, and Palumbo, 1997). They have many names and are variously referred to as expositions, exhibitions, trade fairs, scientific or technical conferences, and conventions throughout North America, Europe, and Australasia. Although the names associated with the activity may differ and be used interchangeably, the fundamental nature of the activity remains the same – it is a major industry marketing event (Herbig et al., 1997).

It has been argued that trade shows are one of the three most important factors influencing the customer's purchase decision in business-to-business (B2B) markets (Kijewski, Yoon, and Young, 1993, Parasuraman, 1981) and rank second only to direct sales in terms of importance to the marketing mix (Duncan, 2001). Trade show organisers aim to create highly effective shows that benefit both exhibitors and visitors. From an organiser and exhibitor perspective then, it is important to understand what visitors believe constitutes an effective trade show. Yet despite the widespread presence of TSs in the business landscape and their potential usefulness, the issue of TS effectiveness has been generally under-researched in the scholarly literature (Gottlieb, Brown, and Drennan, 2009; Hansen, 2004; Smith, Gopalakrishna, and Smith, 2004).

Notably, most empirical work that exists examines effectiveness from an organisational or business buyer perspective and appears to overlook how perceptions of trade show effectiveness are developed by consumers (Hansen, 1996). B2C trade shows

represent an important avenue for manufacturers and retailers to engage with a market. Consumers are likely to have different motivations for attending trade shows and exhibit different forms of behaviour than industrial buyers and may therefore assess effectiveness differently. The absence of suitable measures to operationalise TS effectiveness from the consumer visitor's perspective thus represents a gap in the literature that needs to be addressed.

The purpose of this research project is therefore to conceptualise and develop an appropriate measurement model for perceived trade show effectiveness from a visitor perspective for B2C trade shows. The existence of a valid and reliable model would be of direct value to both researchers and trade show practitioners.

## **Background and previous research**

Although trade shows are frequently conceptualised as promotional tools that involve both direct selling and advertising (e.g. Blythe, 1999a, Gopalakrishna and Lilien, 1995, Hansen, 2004, Smith, Gopalakrishna, and Smith, 2004,), alternative views have been proposed. For example, Munuera and Ruiz (1999) provide a compelling argument that trade shows are more like a service involving a series of activities that must be perfectly coordinated. The TS visitor participates in the service environment (Severt, 2002) and may even be viewed as a partial employee (Mills, 1990). Such views strengthen the argument that the TS visitor experience represents an important element of trade show success as research has demonstrated that the perception of service transactions by service environment visitors and employees are correlated (Schneider, 1980). Clearly TSs are multi-faceted business tools and the manner in which their effectiveness is measured may be contextually dependent on the perspective of the evaluator.

The broad definition of effectiveness adopted in this paper is that proposed by Kottmann (2002), who suggests it is the degree to which a predefined objective matches an achieved objective independent of the input. If a predefined objective has been achieved it is effective and this constitutes a success. Objectives reflect the results that TS attendees (both visitors and exhibitors) expect to achieve through TS participation (Browning and Adams, 1988). Research consistently indicates that attendees with stated objectives experience superior TS performance and report higher levels of satisfaction than participants who do not have clearly delineated TS objectives (Kerin and Cron, 1987, Sharland and Balogh, 1996). Applied to the context of B2C trade shows, perceived TS effectiveness from the consumer's perspective can therefore be considered as a consumer's belief about the degree to which he/she is able to achieve his/her attendance objectives.

Research indicates that B2B TS exhibitors seldom set specific objectives prior to attending TSs (Blythe, 1997, Blythe, 1999b, Gopalakrishna and Lilien, 1995). Furthermore, it appears that visitors also appear to rarely set objectives before attending a show (Blythe, 1999b). From a TS organiser's perspective, show success depends not only on the exhibitors but also to a large extent on the visitors (Munuera and Ruiz, 1999), so it is likely to be important that exhibitors and organisers understand what it is that consumers feel makes a B2C show effective.

A review of the literature indicates that most studies of TS effectiveness have been conducted from an organisational perspective with many of them relating specifically to booths (e.g. Kindt, 1993, Sprüss Messe Institut für Forschung, 1998). The manner in which effectiveness has been operationalised has also varied considerably. Some researchers (e.g. Gopalakrishna et al., 1995, Gopalakrishna and Lilien, 1995) have used proxy measures of effectiveness such as audience quality, audience activity, booth attraction, contact, and conversion efficiency in mostly conceptual research, again from the exhibitor's and

organiser's perspective. Others (e.g. Hansen, 2004, Shoham, 1999) have used actual objectives specified by exhibitors and organisers. Recent work in this area (Hansen, 2004) recommends an outcome- and behaviour-based TS effectiveness measure using objectives to successfully test self-reported TS performance. Overall though, empirical work is limited in the arena of TS effectiveness measurement and the current paper seeks to add to the literature in this regard.

Although the majority of studies of effectiveness have focussed on organisers and exhibitors, there are some exceptions that have focussed predominantly on visitor perceptions. Smith, Hama, and Smith (2003) for instance studied how the accomplishment of attendance objectives influences future show interest. Using a buying centre segmentation model for industrial attendees Godar and O'Connor (2001) also investigated visitor motives for attending trade shows. Blythe (2002) explored visitor and exhibitor expectations of TSs within the context of relationship development. More recently, Berne and Garcia-Uceda (2008) examined criteria used by potential visitors in their ex-ante evaluation of which trade shows to attend. Nevertheless, the number of studies in this area is surprisingly small and notably each of these was based on industrial trade shows with the unit of analysis being mainly business buyers/attendees.

Some studies have implied that industrial exhibitors may fundamentally have selling motives for attending a show (Blythe, 2002) while visitors generally do not have buying motives (Hansen, 1996) and indeed may even have selling motives. However, Berne and Garcia-Uceda's (2008) study suggests that motives for attending a B2B TS among both visitors and exhibitors are generally somewhat similar, with a range of factors considered, of which completion of actual sales at a show is not relevant. They argue that perception/information, marketing objectives, and perceived costs are three broad dimensions on which attendees evaluate a B2B TS.

In contrast, B2C trade shows may be somewhat different. They typically have a more liberal and friendly atmosphere than B2B shows, which generally restrict entry to businesses wishing to engage in formal trade processes. B2C events are intended for consumers and the sale of products at such events is common, therefore actual purchases/sales may or may not be a goal of visitors/exhibitors. B2C shows will often have more exhibitors, lower entry fees, and a larger volume of attendees. These factors suggest that perceptions of effectiveness of a show may possibly be different for consumers. Research also suggests that other exhibitor objectives are to engage directly with a large number of consumers, improve relationships, and expose the product or brand with a view to stimulating sales in the longer run (Biz Tradeshows, 2011, Yuksel and Voola, 2010). These are similar to some of the objectives of exhibitors at B2B shows.

What seems to be lacking in the literature then is a clear delineation between those attending for business buying purposes and end-user consumer attendees. This paper considers the consumer attendee who has no selling motive, who may indeed have a buying motive, and may be exposed to different set of circumstances than a B2B show attendee. It is unique in that it seeks to develop a measurement model for assessing consumer perceptions of TS effectiveness that is specific to B2C trade shows that are open to the general public. In order to do so, an analysis schedule is put forward that commences with an exploratory study followed by two larger-scale, predominantly quantitative studies. Indicators of perceived TS effectiveness from the consumer visitor's perspective are developed and psychometrically tested resulting in a latent multidimensional model that is new to the literature. The paper concludes by considering the managerial and research implications of the results.

## **Study 1**

### *Sampling and data collection*

A sample of forty-seven visitors to a B2C trade show was obtained for the qualitative component of the research project. It is suggested that a sample of at least twenty respondents is needed for maximum variation where the variation of a phenomenon reaches saturation and few or no new concepts emerge (Sandberg, 2000). The basic goal of non-probability sampling is to replicate the population (Judd et al., 1991). Therefore, the respondents were asked to identify themselves according to Blythe's (2002) TS visitor typology in order to guarantee responses from a broad variety of TS visitors. With this number of respondents the chances of identifying the most important indicators of consumer visitors' perceptions of effective TSs were increased. Additionally, a selective decision could be made as to whether indicators of a secondary nature that are less frequently mentioned need to be included in any subsequent measurement instrument.

To obtain data, the researcher (one of the authors) placed himself next to a highly frequented exit of a B2C financial investment trade show in Melbourne, Australia. A highly frequented exit was considered an exit close to a train station or car park. To ensure that all respondents had the same preconditions, they were approached and briefed in the same way. Specifically, they were asked open and broad questions to obtain detailed data and comprehensive descriptions. The questions began with: "Do you perceive this TS as an effective TS? If yes, why do you perceive this TS as effective? If no, why do you perceive this TS as ineffective?" Additionally, respondents were asked to answer a range of demographic questions for statistical purposes such as their gender and income level. The interviews typically lasted between five and ten minutes, with the researcher taking notes during the course of the interviews. This technique accommodates a large number of respondents with an amount of qualitative data that is still manageable considering the scope of the research project (Martinsuo, 2001).

To guarantee the validity of the data collection process field notes were taken. Taking notes guarantees precise and correct information as opposed to relying on the researcher's memory (Sekaran, 2003). The advantage of note taking over tape recording is that taped interviews might bias the respondents' answers because they know that their anonymity might be compromised (Sekaran, 2003). Moreover, central, high traffic locations in outdoor environments are noisy and crowded, making note-taking a better option than recordings containing ambient noise. To maximise the validity of the data collection process, the researcher noted down verbatim the responses where possible. Where verbatim note taking was not possible, the researcher noted down the responses in bullet-point form. Immediately following an interview with note taking in bullet-point form, the researcher took time to extract sentences out of the acquired information to reassemble the original response of the interviewee as closely as possible. Once this was successfully completed further interviews were conducted.

#### *Data analysis*

The field notes prepared by the researcher were analysed using content analysis (Cooper and Schindler, 2001). Content analysis is most suitable for the analysis of responses to open-ended questions (Malhotra, 1999) such as the ones used in this study. Since a message may convey a multitude of contents, content analysis is utilised to analyse the appearances of words, sentences, phrases, or expressions (Krippendorff, 2004). Content analysis also involves quantifying participants' statements into frequencies. A valid content analysis scheme depends on the ability to code all the interview data as well as the precision of the coding categories. These coding categories are only precise when they are mutually exclusive and thus allow statements to fit one code only. A valid content analysis scheme guides the conversion of qualitative data into quantified variables but has to deal with a trade-

off between resource-saving, reliable simplicity (through a large number of categories) and information-rich complexity (through less coding categories) (Larsson, 1993).

The scheme used to code the qualitative interview data was derived from the interview content. The unit of analysis for the purpose of coding was a sentence. Firstly, the transcripts were independently coded by the researcher with the objective to obtain mutually exclusive and exhaustive categories. Then a trained research assistant who was guided only by the content analysis scheme independently categorised the data. The trained research assistant was free to create new categories if required.

In order to establish the reliability of the content analysis scheme, the trained research assistant was kept blind to the purpose of the research project to safeguard against undue coding influences from the researcher (Larsson, 1993). The assistant then coded three pilot interviews to become familiar with the coding scheme and to compare codings for calibration purposes. With few exceptions, coding decisions matched those of the researcher. Coding decisions that were not agreed upon by the researcher and the trained research assistant were examined. To counterbalance this, the researcher and the trained research assistant re-examined their coding. All coding disagreements were discussed between the researcher and the trained research assistant until an agreement was reached, resulting in identical codes.

### *Results*

Participants in Study 1 were asked to identify themselves according to Blythe's (2002) TS visitor typology, which was presented to them by the researcher. The typology utilised five statements that best described a visitor's motive for attending the TS. Only one response was required and respondents were labelled accordingly. Four respondents were classified as attending primarily to identify possible customers to whom they might sell something. These



selling-oriented participants were removed from subsequent analysis resulting in a useable sample of forty-seven respondents (male=37, female=10).

Several indicators elicited both positive and negative response valence. For example, some visitors referred to the TS as ineffective because no highly innovative and complex goods and services were on display (“The information provided is nothing new”; “... was not interesting. It was a show with no value”), whereas other participants regarded the gathering of product information in the form of brochures or handouts as an effective way of obtaining new information (“I got all the new information I sought after. Here, I have a lot of brochures and information to look at later on.”). Yet other interview participants expected direct one on one contact with booth personnel and therefore perceived the TS as ineffective when this opportunity did not arise (“The staff that was present at the TS was not approachable. That only leaves you with the brochures.”).

Thirteen different indicators emerged during the course of data analysis that could be considered related to consumer perceptions of TS effectiveness. It was decided to retain all indicators with at least three occurrences in the content analysis, resulting in ten items to be subjected to further testing. The items are presented in the order of their frequency of appearance at Table I.

<Take in Table I about here>

**Table I.**

Consumer visitor evaluation indicators of trade show effectiveness

| <b>Ranking</b> | <b>TS Effectiveness Evaluation Indicators</b>          | <b>Frequency</b> |
|----------------|--|------------------|
|                | Ability to gather product and / or service information | 29               |

|   |    |
|---|----|
| Ability to attend special events / presentations          | 19 |
| Ability to enjoy the TS entertainment                     | 13 |
| Ability to identify future trends                         | 11 |
| Ability to test and see product and / or service features | 11 |
| Ability to identify new suppliers                         | 10 |
| Ability to maintain relationships with suppliers          | 9  |
| Ability to conduct industry intelligence                  | 7  |
| Ability to solve problems with suppliers                  | 3  |
| Ability to make a purchase decision                       | 3  |
| Ability to browse through a great range of exhibits       | 1  |
| Ability to obtain value for money                         | 1  |
| Ability to make a decision on repatronage intentions      | 1  |

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*n=47*

### *Discussion*

In general, findings from the semi-structured interviews in Study 1 indicate support for the idea that effectiveness is best evaluated in terms of the objective or purpose of attending a show (e.g. Shoham, 1999, Smith et al., 2003). In this study it became apparent that consumer respondents perceived the TS as effective when they achieved their objective for visiting the show in the first place. This insight parallels the work of Kerin and Cron (1987) and Sharland and Balogh (1996) who argue that TS visitors and TS exhibitors with stated

objectives experience superior TS performance and report higher levels of satisfaction than participants who do not have clearly delineated objectives. It seems logical that consumers perceive a TS as effective when they know that their resources (e.g. time, money, opportunity costs) were invested wisely, resulting in the accomplishment of one or more pre-determined objectives. This appears to not be the case for visitors with ill-defined or no objectives who at the end of their TS visit may not be able to evaluate whether the visit has been an effective one as there is nothing to measure against.

## **Study 2**

### *Data collection and sampling*

The objective of Study 2 was to test the psychometric properties of the measurement items generated in Study 1. Quantitative data were obtained from responses to a consumer TS visitor questionnaire containing these items among others, including demographic and visitor profile items. All items used for scale development purposes employed seven-point Likert-type responses (1=strongly disagree; 7=strongly agree). Pencil and paper questionnaires were administered by the researcher and two trained research assistants, who placed themselves at central, highly frequented exits at a caravan, camping, and holiday trade show in Brisbane, Australia. As in Study 1, a highly frequented exit was considered to be an exit close to a train station or car park.

Using the intercept interview technique (Cooper and Schindler, 2001), data collection commenced at around midday. This decision was made for two reasons: 1) it was assumed that participants who left the show grounds from midday on would have had sufficient exposure to the TS to form an opinion about it and 2) to guarantee access to a maximum variety of respondents who had attended. Exiting visitors were intercepted and asked to participate in a field survey for an academic research project. During Study 1, it became

apparent that the fact the research was conducted for academic and not commercial purposes was of importance to potential respondents and minimised unwillingness to participate. Therefore this point was stressed during the approach. Once visitors agreed to participate they were briefed in the same way in order to ensure the same preconditions of all respondents. Then the participants were handed the questionnaire and returned it to either the researcher or to one of the trained research assistants on site.

### *Data analysis*

Exploratory factor analysis (EFA) was employed to search for a structure among the set of items used to describe consumer visitors' perception of TS effectiveness. To use EFA for this purpose and not to set any a priori constraints on the estimation of factors is considered appropriate practice in scale development (Hair et al., 1998). Using EFA, the items were evaluated for any underlying dimensions or factors that might explain the pattern of correlations within this set of observed items (Malhotra, 1999). Additionally, factor analysis helps to determine whether certain variables within a construct add value to the research (Zikmund, 1997). Variables that contribute significantly to the total explained variance of a construct are seen as worthy of keeping in measurement instruments.

Additional to the analysis of quantitative data in Study 2, content analysis was employed to analyse qualitative data simultaneously obtained. The questionnaire contained a free-form open-ended question regarding respondents' perception of what they felt did or did not make the TS effective. To maximise content validity of the measurement instrument, consumers were asked for their perception of TS effectiveness in general. These qualitative data were analysed following the same process described in Study 1.

### *Results*

After removing participants with commercial selling motives, one hundred and fifty individual responses were obtained. The data were tested for outliers, normality, and missing data. One case was identified as an outlier and removed from further analysis due to its extreme scores and variance of zero. All of the variables were well within range regarding the thresholds for skewness and kurtosis. Eight questionnaires contained missing data but only related to some of the demographic questions, for example income level, and were therefore deemed useable.

The data were subjected to EFA using varimax rotation. Three factors emerged explaining 67.4% of the variance. The factor matrix for the rotated three-factor solution is depicted at Table II. Variables were considered to load significantly on a factor when their factor loading was  $\geq 0.5$  (Hair et al., 1998). Bartlett's test of sphericity and the Kaiser-Meyer-Okin (KMO) measure of sampling adequacy both supported factor analysis integrity (KMO: 0.859 / Bartlett:  $p < 0.00$ ).

<Take in Table II about here>

**Table II.**

EFA factor solution matrix study 2

| Variable |   | 3 Factor Solution rotated |       |       |
|----------|---|---------------------------|-------|-------|
|          |   | 1                         | 2     | 3     |
| 1        | gather product / service information    | .081                      | .719* | .355  |
| 2        | special events / presentations          | .261                      | .818* | -.009 |
| 3        | industry intelligence                   | .541*                     | .511* | .132  |
| 4        | future trends                           | .716*                     | .258  | .231  |
| 5        | test and see product / service features | .851*                     | .126  | .170  |
| 6        | identify new suppliers                  | .762*                     | .212  | .289  |
| 7        | finalise purchase decision              | .375                      | .019  | .789* |
| 8        | solve problems with suppliers           | .193                      | .260  | .824* |
| 9        | contact suppliers                       | .167                      | .488  | .646* |
| 10       | entertainment                           | .255                      | .540* | .303  |

\* factor loading  $> 0.5$

$n=149$

Table II shows that consumer visitor's perception of TS effectiveness exhibits a three-dimensional factor structure. Items three, four, five and six load significantly on factor one, labelled as the *research* factor. Items one, two, and ten load significantly on factor two - the *entertainment* factor. Notably, item three (gather industry intelligence) also has a significant cross-loading on factor two. The objective of the EFA in this study was to test for a simple factor structure for consumers' perception of TS effectiveness. It was concluded that the cross-loading did not cause substantial problems and in order to more fairly represent the domain, it was decided to maintain the higher significant loading on factor one. Items seven, eight, and nine have significant loadings on factor three, which is labelled the *operational* factor. None of these items have significant cross-loadings with other factors.

Tests for internal consistency of the three sub-dimensions were conducted with alpha coefficients for the research ( $\alpha = 0.83$ ) and operational ( $\alpha = 0.79$ ) factors well above the recommended 0.70 threshold (Nunnally, 1978). The alpha coefficient for the entertainment factor was 0.66, below the threshold of 0.70. However, Malhotra (1999) suggests that only a value of 0.60 or less generally indicates unsatisfactory internal consistency reliability and Hair et al. (1998) suggest that values between 0.60 and 0.70 are deemed the lower limit. Therefore an alpha value of 0.66 for the entertainment factor was considered acceptable for this research and no further action was taken.

### *Discussion*

Study 2 provides support for the conceptualisation of TS effectiveness from the consumer visitor's perspective as a multi-dimensional latent variable with three factors. However, a content analysis of the qualitative answers provided by the respondents for the open ended

question on the questionnaire regarding perceptions of effectiveness was also conducted. Notably, eleven participants indicated that the great range of exhibits on display contributed to their perception of effectiveness of the show. The indicator “ability to browse through a great range of exhibits” was mentioned proportionately more than in Study 1, when this specific indicator was mentioned only once. It was therefore decided to introduce this item into the multi-item measurement testing for Study 3. The decision was taken as it became apparent during the data collection process that this indicator was more relevant than previously thought. The remaining responses did not result in any further changes with frequencies lower than three achieved for all other items outside of the originals from Study 1. Hence, the consumer perception of TS effectiveness measurement model was extended to include eleven items to be tested in Study 3.

### **Study 3**

#### *Data collection and sampling*

The objective of Study 2 was to perform an initial test of the psychometric properties of the measurement items generated in Study 1 and to identify a simple factor structure. The purpose of Study 3 was to introduce the eleventh item, confirm the factor structure, and establish the robustness of the model’s psychometric properties across a larger scale data collection and within a different TS context. Given the frequency with which the range of exhibits item was mentioned in response to the open-ended, qualitative question in the Study 2 questionnaire, testing an eleven-item model was warranted.

In this instance the sample consisted of visitors to a B2C automotive trade show in Sydney, Australia. Again, all items used for scale development purposes utilised seven-point Likert-type responses (1=strongly disagree; 7=strongly agree). Data were collected by a researcher and two trained research assistants in a similar manner to both previous studies.

As in Studies 1 and 2, they placed themselves at central, highly frequented exits close to either a train station or car park. The procedure for approaching participants and gathering data was identical to Study 2.

### *Data analysis*

Both exploratory and confirmatory factor analysis (CFA) were used to analyse the data. EFA was utilised to test the factor structure of the entire eleven-items. CFA was used to test the proposed measurement model for consumer perception of TS effectiveness for model fit. A variety of goodness-of-fit indices were determined for the CFA as no single statistical test of significance identifies a correct model from sample data. These included parsimony fit, comparative fit, and absolute fit indices.

### *Results*

After removing participants with commercial selling motives, five hundred and ninety-two visitor responses were available. Thirty-eight participants did not fully respond to the demographic questions. All other questions were answered. No outliers caused by procedural error were detected. However, twenty-two multivariate outliers were identified (Mahalanobis  $D^2$ ,  $p < 0.001$ ). After an analysis of the raw data it was apparent that these cases were representative and not aberrant of observations in the population, therefore all outlying cases were retained for final analysis. In testing for normality of data distribution, the thresholds for skewness and kurtosis were met by all variables with the exception of the range of exhibits item, which was just outside this threshold (skewness -1.02; kurtosis 1.05). Given the borderline nature of its distribution and the perceived importance of this item to a number of respondents in Study 2, it was decided that its inclusion would potentially provide the research with meaningful findings and therefore no further action was taken.



To determine on which factor the eleventh item loaded (if any), another EFA using varimax rotation was performed. Similar to Study 2, a three factor structure emerged, explaining a cumulative variance of 63.218%. Again, variables were considered to load significantly on a factor when their factor loading was  $\geq 0.5$  (Hair et al., 1998). Bartlett's test of sphericity and the Kaiser-Meyer-Okin (KMO) measure of sampling adequacy both supported factor analysis integrity (KMO: 0.77 / Bartlett:  $p < 0.00$ ). Table III shows the full range of factor loadings and the complete version of each item as used in both Study 2 and 3 questionnaires.

A second-order CFA for the eleven-item consumer perception of TS effectiveness model indicated that all freed paths had a significant loading. Table III also illustrates these freed paths with their respective standardised path estimates and t values.

<Take in Table III about here>

**Table III.**

Consumer visitors' perception of TS effectiveness construct - EFA and CFA Study 3

| Perceived Trade Show Effectiveness Measurement Items            | Rotated 3-Factor EFA |               | 2 <sup>nd</sup> Order CFA |                             |
|---|----------------------|---------------|---------------------------|-----------------------------|
|   | Research             | Entertainment | Operational               | Standardised Path Estimates |
| 1. I was able to gather product/service information.            | .265                 | <b>.653*</b>  | .226                      | 0.69                        |
| 2. I perceive the special events/presentations as useful.       | .399                 | <b>.702*</b>  | .136                      | 0.82                        |
| 3. I was able to gather industry intelligence.                  | <b>.554*</b>         | .293          | .412                      | 0.77                        |
| 4. I was able to identify future trends.                        | <b>.843*</b>         | .185          | .100                      | 0.67                        |
| 5. I was able to test and see product/service features.         | <b>.597*</b>         | .200          | .352                      | 0.68                        |
| 6. I was able to identify new suppliers.                        | .479                 | .181          | <b>.511*</b>              | 0.69                        |
| 7. The trade show helped me to finalise my purchasing decision. | .321                 | .021          | <b>.726*</b>              | 0.70                        |
| 8. I was able to solve problems with suppliers.                 | .144                 | .184          | <b>.846*</b>              | 0.85                        |
| 9. I was able to get in contact with suppliers.                 | .063                 | .325          | <b>.799*</b>              | 0.80                        |
| 10. The entertainment made the trade show enjoyable.            | .026                 | <b>.818*</b>  | .193                      | 0.68                        |
| 11. I was able to browse through a great range of exhibits.     | .491                 | <b>.524*</b>  | .067                      | 0.63                        |

\* factor loading > 0.5; CFI = 0.95; AGFI = 0.87; GFI = 0.92; SRMR = 0.051;  $\chi^2$  (p = 0.000) = 256.86; df = 41;

### *Tests of reliability and validity*

As recommended by Fornell and Larcker (1991), composite reliability scores were calculated as a measure of the internal consistency of the indicators, depicting the extent to which they indicate common latent constructs. Composite reliability of around 0.70 or above is considered an acceptable level (Hair, Anderson, Tatham, and Black, 1998). Reliability estimates and average variance extracted (AVE) were computed manually resulting in the following coefficients: research 0.88 (AVE = 0.50), operational 0.83 (AVE = 0.58), entertainment 0.81 (AVE = 0.50).

### *Construct validity*

To test for construct validity, it is necessary to provide evidence for both convergent and discriminant validity as neither alone is sufficient for establishing construct validity. Given that each of the standardised factor loadings exceeded 0.5 and the AVE for each construct was 0.5 or greater, it would appear that the measurement items converge on each separate construct in the manner hypothesised. With the AVE scores also exceeding the squared inter-construct correlation estimates among the latent dimensions (all below 0.19), evidence is also provided for discriminant validity.

In addition, a two-level-factor model with perceived B2C TS effectiveness as the second level factor was conducted to assess correlations with the three latent variable components. The goodness-of-fit was within bounds as GFI and AGFI were higher than 0.9 with RMSEA again at 0.08. Correlation between TS effectiveness and the three latent factors ranged from 0.61 to 0.71 with all correlations significant at  $p < 0.01$ , suggesting the three latent component variables are also convergent on a common construct.

### *Nomological validity*

To establish nomological validity the relationship between consumer perceptions of TS effectiveness and valence of consumers' overall trade show experience was tested. Valence

reflects the degree to which an object of interest is considered favourable or unfavourable regardless of consumers' evaluation of any other aspect of the experience (Brady and Cronin, 2001). It is logical to expect a positive association between these two constructs. Valence was measured with a scale adapted from Brady and Cronin (2001). The three items were as follows: 1) When I left the trade show, I felt that I had had a good experience, 2) I believe the trade show tried to give me a good experience and 3) I believe the trade show knows the type of experience its customers want (1=strongly disagree; 7=strongly agree). Regressing valence on TS effectiveness yielded a significant positive relationship between the two constructs ( $\beta = 0.65$ ;  $t = 15.01$ ;  $df = 1, 529$ ;  $p < 0.01$ ), indicating that the TS effectiveness scale has nomological validity. In sum, the findings outlined above suggest that TS effectiveness is a statistically valid multidimensional construct.

### *Discussion*

Study 3 confirms the robustness of an eleven-item scale to measure consumer visitors' perception of TS effectiveness. Inclusion of the range of exhibits item did not drastically alter the psychometric properties of the TS effectiveness scale identified in Study 2 but would seem to provide a richer understanding of the nature of the construct. Interpreting range of exhibits to load on the entertainment factor is also consistent with existing literature suggesting that variety seeking is a form of trying to increase stimulation from the environment (e.g. Chen and Paliwoda, 2004, Knox and Walker, 2001, Ratner and Kahn, 2002). In sum, Study 3 demonstrates that the measurement instrument is stable across its three-dimensional structure and is reliable and valid.

### **General discussion**

Conceptualising TS effectiveness from a consumer visitor's point of view as a three dimensional construct is a significant finding. Notably the findings indicate that ten out of

eleven perceived TS effectiveness indicators actually relate to non-purchasing activities, with one item (final purchase decision) relating to actual purchase. The results are somewhat similar to findings from the B2B TS literature. For example, several studies have found that commercial visitors are primarily driven by non-purchase activities (e.g. Berne and Garcia-Uceda, 2008; Munuera and Ruiz, 1999).

Berne and Garcia-Uceda (2008) argue that purchasing at a B2B TS is not an element in visitors' ex-ante evaluation of whether to attend. In contrast to their study, we found that the ability to finalise a purchase decision is a significant aspect of evaluating the effectiveness of a B2C TS. Given that sales cycles are typically longer in B2B contexts this is perhaps an understandable distinction. Many exhibitors at B2C shows make sales at the TS itself and consumer purchase decisions are typically shorter than for business buyers. Therefore the ability for the consumer visitor to finalise a purchase decision (and maybe even make a purchase) appears to be unique finding from the B2C context.

Because a factor is a qualitative dimension it is common practice to label each factor based on an interpretation of the variables loading most heavily on it (Smith et al., 2003). It seemed appropriate to label factor one research, factor two entertainment, and factor three, operational. However, it should be noted these labels are subjective in nature and represent the authors' interpretation.

Upon scrutinising the three factors more closely, it becomes apparent that the operational factor primarily refers to issues that are of current concern to consumers while attending a TS. It is here that the only purchasing-related item is found. Finalising purchase decisions is clearly a relevant issue for consumer TS visitors who are close to a product acquisition. B2C TSs offer prime opportunities to solve last minute issues regarding the specification of the product itself, the purchase details, or a change in the market environment

such as the emergence of an alternative offering. The loading of the item “solve problems with suppliers” on the operational factor can be explained using a similar rationale. Existing problems with exhibitors are issues that are of concern to many consumer TS visitors and again, TSs offer an excellent platform from which those issues can be dealt with. The final item of the latent operational construct, contact suppliers, refers to consumers that attend a TS to maintain or enhance relationships with a firm that they have previously engaged with. In the consumer TS environment this is an activity that may be neither time consuming nor costly because of the close vicinity in which a number of suppliers may be.

The entertainment factor is comprised of four items. Many visitors attend TSs partly because of the entertainment they are exposed to (Blythe, 2002). Hence visitors may evaluate the perceived effectiveness of a show by judging its entertainment aspect. During the course of the research it became apparent that special events and presentations are an integral component of the entertainment factor. It might be that for consumer TS visitors such special events and presentations are not perceived purely as a means of product demonstration but form part of the overall entertainment experience of a TS. It might be that TS exhibitors should not think of themselves as an isolated entity at a TS but rather as part of an ensemble. The entertainment item of the entertainment latent construct encapsulates all elements of a TS that are utilised by organisers and exhibitors to amuse, please, and divert consumer TS visitors.

Range of exhibits also appears to be an important element of the entertainment factor. Often when an individual is in an environment that provides low stimulation (below the optimal level), the individual is bored and there is a desire for increased stimulation. This may lead to exploration or variety seeking whereby the individual seeks to increase stimulation from any source available (Chen and Paliwoda, 2004). TSs naturally offer highly

stimulating environments with a great variety of offerings on display which may facilitate the entertainment of TS visitors.

Finally, the fourth item of the entertainment dimension (gather product / service information) appears to be closely linked with the other three items as gathering such information in highly stimulating environments is believed to create excitement and fun for visitors to these environments (Gruen, 1995). In the words of one tradeshow attendee, “My husband often wonders why I love collecting so many brochures at trade fairs. It’s part of the fun.” Browsing a range of products, comparison shopping, or collecting a variety of brochures may be equated to recreational shopping (Brown, Pope, and Voges, 2003), therefore it is unsurprising that this item loads on the entertainment factor. Overall it seems evident that the entertainment facet of TSs is a significant contributor to the perception of effectiveness from a consumer visitor’s point of view. It would also appear that TS organisers and TS exhibitors have intuitively understood this for centuries judging by the carnival-like atmosphere that many TSs have displayed throughout the ages.

The latent construct research, which constitutes four items, refers to inquiry into specific aspects of the industry for future decision-making purposes. Identify future trends suggests that many consumer visitors are interested in discovering the latest fads or learning about directions in which an industry is heading. Gather industry intelligence implies a more deliberate and comprehensive approach to collecting information about a range of exhibitors as opposed to simply identifying future trends. The results of the data analysis suggest a direct positive link from test and see product / service features to the latent research construct. This research activity supports purchase decisions in the future because, depending on the nature of the good / service and the buying situation, consumer TS visitors may take many months to move from an interest to an actual purchase (Gopalakrishna et al., 1995). Finally, the item identify new suppliers would appear to fall within the rubric of research since it

deals with consumers' intentions to seek new providers for future purchase occasions or to identify exhibitors that have products on display worthy of closer scrutiny.

It is perhaps of interest to contrast the factors uncovered in the present study with those of Berne and Garcia-Uceda (2008), who examined evaluation criteria for industrial TS visitors deciding which show to attend. Although the measures in this paper are for effectiveness (an ex-post measure) and theirs are for pre-attendance decision-making (an ex-ante measure), a comparison may be instructive. The three factors they identified were perception/information, marketing objectives, and perceived costs.

Perception/information is largely concerned with the type of show (vertical/horizontal, geographic market coverage), location and convenience, the show's management and reputation, and the quality and quantity of attendance. Of these dimensions, only the fourth appears to be of significance in the consumer visitor's assessment of TS effectiveness. Perhaps this is due to the usually limited number of consumer TSs in a particular location within a particular industry. The range of exhibits item appears to correspond to certain aspects of the fourth variable but given the variety-seeking rationale outlined previously, it forms part of the entertainment factor in the current study.

From the visitor perspective, the marketing objectives factor is primarily predicated on the development and maintenance of distribution networks and scanning new products. The items gather industry intelligence, identify future trends, solve problems with suppliers, and contact suppliers from the current study may be construed as being associated with distribution issues. Gather product/service information and test and see product/service features appear to be more aligned with scanning new products. An explanation for them loading onto different factors may be to do with the other objectives identified in this study for attending a B2C show. Specifically, it is notable that the items finalise purchase decision, special events/presentation, and entertainment do not correspond to any aspect of the Berne



and Garcia-Uceda factors. Having an entertaining time and coming to a purchase decision are clearly important to many consumer TS visitors and represent a novel finding in terms of visitor evaluations of TS effectiveness.

Perceived costs relate to the expenses exhibitors and attending firms incur in terms of exhibition costs, the number of shows attended per year, and the cost of various employees attending. These variables were not relevant to B2C visitors as most consumer shows are typically free or of minimal cost to visitors.

In summation, the eleven items discussed in detail above represent the first effort in the literature to empirically measure perception of the TS effectiveness construct by visitors within a B2C context. Although they share some similarities with the evaluation criteria of B2B trade show visitors, they combine to form a unique, parsimonious, multidimensional measurement instrument that demonstrates robust psychometric properties and that has until this point been absent from the marketing literature.

### *Managerial implications*

The results of this research possess utility for both organisers and exhibitors. A clear contribution of the study lies in the identification of entertainment as a key factor in consumer evaluations of TS effectiveness. Organisers should devote considerable attention to this aspect of a show and insure that unique and/or entertaining performances and presentations feature prominently. On-stage shows, live music, roaming magicians, information sessions, and celebrity appearances can all be used by organisers to create a carnival-like atmosphere. Furthermore, the variety of firms on display should be considered part of the entertainment tapestry and the exhibitor mix deliberately conceptualised as a form of recreational stimulation. Competitions, novel product demonstrations, and exciting visual props at the booth are just some of the tools that could be used by exhibitors to create a more

entertaining experience for visitors. Such examples should not merely be thought of as fun or amusing diversions but as a strategic choice in the organisation of a successful B2C trade show event.

Operational issues such as contacting suppliers, solving existing problems, and finalising purchase decisions are also important to many consumer attendees. Exhibitors should therefore come prepared to assist consumers with product difficulties and even carry stock in order to facilitate final purchases. Booth staff should be chosen for their thorough product knowledge and capacity to manage consumer interaction at all stages of the marketing funnel including final sale. In pre-show promotional campaigns exhibitors could also emphasise that they will be on display at a particular show and available for a range of consumer needs. Organisers might also facilitate the accomplishment of such consumer objectives by providing appropriate meeting rooms where problems can be discussed in depth or sales documentation completed in privacy. In some cases, even safe money handling services may ultimately be of benefit to visitors who wish to buy and exhibitors who make large cash sales in-show.

Consumers use trade shows as an opportunity to find out more about an industry and its latest trends, to find new suppliers, and to test product offerings. Organisers may need to lobby hard for particular exhibitors to attend, especially those viewed as innovative market leaders or cutting edge new firms. Offering incentives such as favourable floor positions or reduced rates to those firms who might otherwise be less willing to exhibit is one strategy to assure that consumers leave feeling they have seen 'the latest ideas'. Making certain that there are a number of competitors for as many product categories as possible will also help visitors to feel they have seen a deep enough cross-section of the industry. Exhibitors should bring in demo or tester versions of their products for consumers to touch or otherwise interact with. Samples might also be provided if cost-effective. Simply using digital displays or

handing out brochures that only ‘talk about’ the exhibitor’s offering may be insufficient for satisfying consumers’ research objectives.

### *Limitations*

Although the research outlined here is comprehensive, there are some limitations that need to be addressed. First, data were obtained from only three trade shows. While every effort was made to obtain a broad cross-section of data for the current study, all responses were obtained in Australia at selected TSs and do not constitute a complete, nor necessarily representative sample of the TS industry globally. There may also be a possible selection bias as a result of the intercept method utilised therefore the findings should be generalised to other populations with caution. However, scale development occurred across three locations and three different industries and the items that emerged were found to be relevant at each. This implies that the factors constituting TS effectiveness from a consumer point of view may indeed be generalisable. Nevertheless, future research might cover a greater range of shows, industries, and geographic locations.

Second, it is possible that the measurement items may have appeared ambiguous to respondents or difficult to answer. This is a prospect for any data collection process using questionnaires. However, the interviewers were on hand when each questionnaire was completed and every effort was made to provide as much clarity as possible - as did indeed occur on occasion.

Third, it may be that there are other variables that influence visitors’ perception of trade show effectiveness that were not uncovered in the research. Given the lack of research into trade shows from a consumer perspective and in particular the dearth of attempts to measure perceptions of effectiveness in a B2C context, future research might yield insights that are not

provided here. Nonetheless, the present series of studies represents a positive step toward understanding effectiveness from a visitor's perspective.

### *Conclusion*

In conclusion, this study's contribution to the trade show literature lies in providing a measurement model with good psychometric properties for capturing the consumer perception of TS effectiveness construct. An understanding of perceived TS effectiveness from a consumer visitor's perspective has been long overdue judging by the limited amount of research in this area compared to TS effectiveness studies from an organiser's or exhibitor's viewpoint. For the first time, it is now possible to measure using a reliable and valid instrument how consumer visitors evaluate TS effectiveness with some confidence. Theoretical understanding has also been enhanced by demonstrating that perceived B2C TS effectiveness is a multidimensional construct with three latent components. The measurement model proposed appears to provide a robust means of capturing the phenomena of interest.

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